

3 COMMENT DOCUMENTS

This section presents the documents submitted to the DOE during the 45-day public comment period on the Draft SEIS and the transcripts of the public meetings held on December 1 and 8, 1999. DOE reviewed each document and transcript and identified the public comments provided. Each comment was marked with a bar and the comment number. For example, Comment 1-3 is the third comment in Document 1. An index of commenters and comment numbers is provided below. DOE has responded individually to each comment in the next section, Section 4.

Anna Aurillio, U.S. Public Interest Group: Comments 1-31 to 1-36 and 2-1 to 2-7
 Kathy Barnes: Comment 7-1
 Ann Beier, Western States Legal Foundation: Comments 3-53 to 3-58 and 4-1
 Cathie Brown, Mayor, City of Livermore: Comment 16-1
 Jackie Cabasso, Western States Legal Foundation: Comments 3-1, 3-7 to 3-9 and 3-59 to 3-67
 Maureen Eldredge, Alliance for Nuclear Accountability: Comments 1-9 to 1-17 and 1-24 to 1-30
 Stephanie Ericson, Tri-Valley CAREs: Comments 4-5 to 4-8
 Dave Farrel, U.S. Environmental Protection Agency, Region IX: Comments 5-1 to 5-9
 Jean C.R. Finney, California Department of Transportation: Comment 8-9
 Joanne Freemire, Tri-Valley CAREs: Comments 4-16 to 4-21
 Winston H. Hickox, California Environmental Protection Agency: Comment 6-1
 Marylia Kelley, Tri-Valley CAREs: Comments 3-2 to 3-4, 3-14 to 3-25, 4-24 to 4-35, and 14-1 to 14-6
 Donald King: Comments 3-68 to 3-71
 Don Larkin: Comments 3-29 to 3-31 and 4-2 to 4-4
 Sally Light, Tri-Valley CAREs: Comments 3-26 to 3-28
 Barry Luboviski, Building and Construction Trades Council for Alameda County: Comments 4-9 to 4-15
 Karen Majors, Economic Development Director, City of Livermore: Comment 3-13
 Dale Nesbitt, East Bay Peace Action: Comments 3-32 to 3-39
 Wes Nicholson: Comments 3-72 to 3-87
 Cindy Pile, Nevada Desert Experience: Comments 3-44 to 3-47
 Mark E. Piros, Department of Toxic Substances Control: Comments 8-1 to 8-8
 Patricia Sanderson Port, U.S. Department of the Interior: Comment 13-1
 Ed Rippey, East Bay Chapter of Peace Action: Comments 4-36 to 4-41
 JoAn Saltzen, Sacramento/Yolo Peace Action: Comments 9-1 to 9-3 and 10-1
 Ann Seitz: Comments 11-1 to 11-6
 Tal Simchoni, Physicians for Social Responsibility: Comments 3-48 to 3-52

Rene Steinhauer, Tri-Valley CAREs: Comments 3-6 and 3-40 to 3-43

Dennis Thomas: Comments 12-1 to 12-2

Andreas Tupadocus: Comments 3-88 to 3-92

Janice Turner, Sierra Club-Bay Chapter, Tri-Valley CAREs: Comments 4-22 to 4-23 and 15-1

Ken Zahn: Comment 3-5

Hisham Zerriffi, Institute for Energy and Environmental Research, Tacoma Park, Maryland: Comments 1-1 to 1-8 and 1-18 to 1-23

Unidentified Speaker: Comments 3-10 to 3-12

DOCUMENT 1: Meeting Transcript, Washington D.C., December 1, 1999, 2:00 p.m.

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TRANSCRIPT OF PROCEEDINGS

IN RE:)
)
DRAFT NIF SEIS)
PUBLIC MEETING)

Pages: 1 through 39

Place: Washington, D.C.

Date: December 1, 1999

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UNITED STATES DEPARTMENT OF ENERGY
OFFICE OF DEFENSE PROGRAMS

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE NATIONAL IGNITION FACILITY
(Draft NIF SEIS)

IN RE:)
)
PUBLIC MEETING)
)

Room 6069
James Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C.

Wednesday
December 1, 1999

The meeting in the above-entitled matter commenced,
pursuant to notice, at 2:00 p.m.

BEFORE: HOLMES BROWN, Facilitator
Afton & Associates

APPEARANCES:

DAVID H. CRANDALL, Director,
Office of Defense Science
Office of Defense Programs

RICHARD SCOTT
Document Manager for the NIF SEIS
ES&H Program Manager for NIF
Oakland Operations Office

STEVE FERGUSON, Attorney,
Office of General Counsel

ANNA AURILLIO, Staff Scientist
U.S. PIRG

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(202) 628-4888

APPEARANCES (continued):

ALSO PRESENT:

HISHAM ZERRIFFI, Project Scientist
Institute for Energy and
Environmental Research

MAUREEN ELDREDGE
Alliance for Nuclear Accountability

3

P R O C E E D I N G S

(2:06 p.m.)

MR. BROWN: Good afternoon. We are formally convening the meeting on the supplemental draft environmental impact statement for the National Ignition Facility. Let the record show that at this point it is 2:07 in the afternoon, that no member of the public is present, so we will recess this meeting until the point at which a member of the public attends the meeting. So we will now recess. Thank you.

(Whereupon, at 2:07 p.m., a brief recess was taken.)

MR. BROWN: Good afternoon. We will reconvene this meeting on the draft supplemental environmental impact statement on the National Ignition Facility at 2:16. We have members of the public present.

Good afternoon and welcome to this first of three meetings on the draft supplemental environmental impact statement. My name is Holmes Brown. I will serve as the facilitator for this meeting. I am not an employee of the Department of Energy, and I'm not an advocate for any particular party or position. My role is to assure that this meeting proceeds as scheduled and that all persons have an opportunity to speak.

The agenda for this afternoon's meeting is as

1 follows. We will begin with a presentation by DOE staff
2 summarizing the content of the supplemental EIS. Next, a
3 panel of three DOE staff will be available to respond to
4 questions. After that, we will begin the formal comment
5 period. The entire meeting beginning now will be
6 transcribed by our court reporter, Ted Fambro.

7 Let me remind you that the question-and-answer
8 period is to clarify points relating to the presentation and
9 to the supplemental EIS. Comments should be offered during
10 the formal comment period rather than during the question
11 period.

12 If there are no questions on the agenda or
13 procedures, we will now turn to our presentation. I'd like
14 to introduce Richard Scott, who is the document manager for
15 NIF, with the DOE's Oakland Operations Office.

16 MR. SCOTT: Thank you. As he said, I'm Richard
17 Scott. I'm the document manager from DOE. I'm actually a
18 chemical engineer in the State of California, with a P.E. in
19 chemical engineering.

20 The purpose of this meeting is to provide the
21 public an opportunity to comment on the NIF draft
22 supplemental environmental impact statement to the
23 stockpile, stewardship, and management program, and that's
24 the EIS number.

25 The reason we're here is the PEIS lawsuit resulted

1 in a joint stipulation and order whereby DOE agreed to
2 evaluate the reasonably foreseeable significant
3 environmental impacts of continuing to construct and operate
4 the NIF with respect to contamination in the area by
5 hazardous toxic and/or radioactive materials.

6 To reiterate the agenda, there will be a DOE
7 presentation, an opportunity for elected officials, which we
8 have none, and then there is a signup sheet for public
9 comments, and a transcript will be made.

10 Just to summarize, the SEIS NEPA process, comments
11 will be accepted until December 20th, and all comments will
12 be considered in the final SEIS. The comment response
13 portion will be in the appendix to the final SEIS. A Record
14 of the decision will be published in the Federal Register at
15 the end of that, and the process is scheduled to be
16 completed in the spring of 2000.

17 The background to this is the environmental
18 consequences of siting and construction and operations of
19 the NIF were addressed in the SSM PEIS, and that was the
20 strategic PEIS. The ROD was published on December 26, '96,
21 and it was the decision to construct and operate the NIF at
22 Lawrence Livermore. Ground breaking took place in May of
23 '97.

24 This is the current construction status of where
25 the construction is right now. It's about 82 percent

1 complete of the conventional facilities where the laser
2 equipment will be sited. During the early construction the
3 site-removal activities of the construction project we
4 discovered capacitors and removed the capacitors and related
5 contaminated soil, the excavation activities, and there were
6 112 capacitors and a number of tons of PCB-contaminated
7 soil.

8 The capacitor and soil cleanup was conducted with
9 the oversight by the federal and state remedial project
10 managers, and it was done under the CERCLA process. The
11 RPNs included the U.S. EPA, the State of California
12 Department of Toxic Substances Control, and the San
13 Francisco Bay Regional Water Control Board.

14 The joint stipulation and order require the
15 characterization of various areas in and around the NIF
16 site. The characterization was done to determine if the
17 areas contained hazardous toxics and/or radioactive buried
18 objects. During that characterization process the progress
19 was reported to the court through the quarterly reports that
20 were accomplished. Following characterization, this draft
21 supplemental EIS was prepared.

22 The areas for evaluation in the joint stipulation
23 and order were the helipad area, the east traffic circle,
24 the northern boundary area, the Building 571 area, the East
25 Gate Drive area, Building 490, and the NIF construction

1 site. This is a map of those areas. This is the NIF
2 construction site, and this is where the PCB capacitors were
3 discovered in there. These green areas are the seven areas,
4 and it's about the top northwest quadrant of the laboratory.

5 The larger picture is on the wall there. This is the east
6 traffic circle area for future reference.

7 The investigation under the JSO required that we
8 look at past records and photos, and past employees were
9 interviewed who were working there prior to 1984, and all
10 retirees who were working at that time were sent letters
11 requesting if they had any information on this issue.
12 Geophysical surveys were conducted throughout the areas that
13 were evaluated. Ground water wells and soil borings and
14 excavations were made and, again, quarterly reports were
15 given to the court with details of all of these studies, and
16 now we have prepared a supplemental EIS.

17 The actual characterization activities included a
18 review of all historical records we had, examination of
19 aerial photographs, interviews with current employees and
20 past retirees. We conducted magnetometer surveys,
21 electromagnet-induction surveys, and ground-penetrating
22 radar surveys, and that was basically state-of-the-art
23 geophysical techniques were used in this set of surveys.

24 We drilled bore holes and analyzed soil samples,
25 we drilled monitoring wells and analyzed ground water

1 samples, and we had a tremendous number of existing ground
2 water wells that we analyzed, and we looked at all of those
3 samples and responses. We made exploratory excavations
4 based on any geophysical results that implied that we needed
5 to look in that area in more detail.

6 The results of the work to date is that sediment
7 samples have found really no contaminants above levels or
8 regulatory concern. Only construction debris was uncovered
9 during the drilling of these bore holes and excavation based
10 on the geophysical results. Ground water sampling at the
11 NIF site has found ongoing cleanup had continued to reduce
12 the contamination levels, and at the specific NIF site were
13 below the maximum contaminant level that required results.
14 No PCBs have been detected in the ground water anywhere on
15 the site.

16 Results of the other areas outside of the NIF
17 construction site itself where the geophysical surveys were
18 evaluated, bore holes and/or excavations on significant
19 geophysical anomalies found only construction debris. The
20 ground water sampling has found ongoing cleanup has
21 continued to reduce the contamination levels in these other
22 areas.

23 Again, this is a picture of all of the ground
24 water-monitoring wells we have on the site. There's
25 approximately 450 ground water monitoring wells that are

1 currently evaluated. After much of this work has been
2 accomplished we did find some PCB contamination in the east
3 traffic circle area during routine maintenance, and this is
4 outside the NIF construction area. Again, I can show you on
5 the viewgraph if you would like to see where that was, but
6 that's the east traffic circle area I showed on the first
7 one. That was during routine maintenance away from the
8 construction project at the surface level. Approximately
9 110 cubic yards of contaminated soil were removed to a
10 regulatory approved level.

11 The environmental impacts of the studies have
12 shown that there is a low likelihood that buried hazardous
13 toxic or radioactive objects remain in the stipulated areas.

14 The soil and ground water sampling have indicated that
15 there is a low likelihood of finding additional buried
16 waste. The continued construction and operation of NIF will
17 not result in a release of hazardous toxic or radioactive
18 material to the ground water.

19 The cumulative impacts of this process have been
20 that the cleanup of the contaminated soil, removal of buried
21 capacitors, and the continued reduction in ground water
22 contamination, and the low probability of finding additional
23 buried hazardous toxic and or radioactive material will
24 cumulatively have a positive overall impact to the
25 environment.

1 For the SEIS the proposed action and the
2 alternatives were to continue to construct and operate the
3 NIF as indicated in the SSN PEIS, which is the preferred
4 alternative. There is another construct of that no-action
5 alternative, and that would be to cease construction of the
6 NIF and construct and operate at another site or possibly
7 cancel the project entirely. In this case, because of the
8 low level of hazard and the low level of materials found
9 during the investigations, we do not consider that required
10 to be analyzed beyond the first level of looking at it,
11 which we did just generally in the document.

12 An additional action alternative would have been
13 environmental mitigation if we had found significant
14 contamination. And, again, the characterization activities
15 indicate that there is no action that's required under that
16 process.

17 The draft SEIS finding is that the results of the
18 analysis indicate that the concentrations of the
19 contaminants are below the applicability level of regulatory
20 concern and that the impacts from the buried material on
21 human health and environment are very low.

22 The rest of the SEIS process is to -- well, this
23 is the SEIS process. We are going to reissue the Federal
24 Register notice. We are holding this public meeting. We
25 will hold two additional public meetings at Livermore.

11
1 Public comments are due to DOE in writing by the 20th, or
2 we'll take them here in any statements. We will issue then
3 a final SEIS in the spring of 2000 and publish a record of
4 decision in the Federal Register, and, again, it's scheduled
5 in the spring of 2000.

6 That's an overview of the SEIS, and we'll open for
7 any questions now.

8 MR. BROWN: Thanks very much. It's now time for
9 the question-and-answer period. I'd like to introduce the
10 other members of the panel. Dave Crandall is the director
11 of the Office of Defense Science. He is in the middle. And
12 Steve Ferguson is an attorney with DOE's Office of General
13 Counsel, and Richard Scott will also be available to respond
14 to questions.

15 I'll remind you, we will have a formal comment
16 period following this, so if you just want to ask questions
17 at this point, they often lead to comments, but if you can
18 just ask questions now, we are open for questions. If you
19 want to identify yourself, that's fine.

20 MR. ZERRIFFI: Yeah. My name is Hisham Zerriffi.

21 I'm with the Institute for Energy and Environmental
22 Research in Takoma Park, Maryland. My first question, you
23 mentioned that NIF is now 82 percent constructed. What was
24 the level of construction at the time that the joint
25 stipulation and order was entered into?

1-1

12
1 MR. CRANDALL: Be corrected, the NIF conventional
2 facility, 82 percent constructed. The overall NIF is of
3 order 50 percent, depending on how we get it rebaselined.
4 In October '97, at the time of the joint stipulation and
5 order, the excavation was approximately complete, and a few
6 other things had been done, so that was probably -- the
7 conventional facility was probably of order 10 percent
8 maybe. Allen can shake his head or not, depending on
9 whether that's about right.

10 MR. ZERRIFFI: Okay.

11 MR. CRANDALL: But we could be more precise if --

12 MR. ZERRIFFI: No. I just wanted to get a rough
13 idea of where it was. Basically you had excavated, but you
14 really hadn't started pouring much concrete essentially.

15 MR. CRANDALL: That's correct. We had to pour
16 probably some. I know we had to pour footings in some
17 cases, but not extensive.

18 MR. ZERRIFFI: But not extensive. Okay.

19 MR. SCOTT: If I could just add, that where the
20 PCBs were is just a small little area, and that construction
21 continued in all of the surrounding areas.

22 MR. ZERRIFFI: Right. And then you didn't start
23 characterization activities, what, I guess, is Phase 2 under
24 the joint stipulation, until, what, about a year? I'm just
25 trying to get some of these dates.

1-2

1 MR. SCOTT: No. Characterization activities
2 started essentially immediately.

3 MR. ZERRIFFI: Started immediately.

4 MR. SCOTT: That really was the Phase 1, the
5 interviews and review of photographs, and all that kind of
6 initial looking at what is a potential area. I'm not sure
7 -- probably the first geophysical work started in January
8 following the October stipulation.

9 MR. ZERRIFFI: Okay. So a few months later.

10 MR. SCOTT: A few months after --

11 MR. ZERRIFFI: So still not much construction had
12 occurred at that point. Okay. And then in the SEIS you
13 discussed characterization, it appears to me -- you can
14 correct me if I'm wrong here -- that you essentially did
15 what we call Phase 2 or some of the actual physical
16 characterization work, at the edges of the construction
17 site, sort of all around the construction site but not
18 necessarily right on the construction site. Is that --

1-3

19 MR. SCOTT: No. The geophysical work went through
20 the construction site area.

21 MR. ZERRIFFI: Through the whole construction
22 site. Okay. And that's perhaps -- it says around the
23 perimeter of the NIF construction area and in the area of
24 the capacitor landfill discovery.

25 MR. CRANDALL: The main base area of the site had

1 been excavated down to its level and was not excavated
2 further except in very selected locations.

3 MR. ZERRIFFI: But did you do any of the
4 geophysical measurements any of the ground-tracking radar
5 measurements, or any of those types of things?

1-4

6 MR. CRANDALL: With a zero expectation of finding
7 any buried treasure at that depth.

8 MR. ZERRIFFI: I'm just trying to figure out what
9 exactly was happening at the time.

10 MR. CRANDALL: The geophysical characterization
11 was primarily around that perimeter.

12 MR. ZERRIFFI: Around the area --

13 MR. CRANDALL: Not exclusively so. There was some
14 within the site, but it was not extensive.

15 MR. ZERRIFFI: Okay. Fine. Okay. My next
16 question relates to -- I just wanted to make sure I
17 understand something. Would you consider this a NEPA
18 document?

1-5

19 MR. FERGUSON: Yes, it is.

20 MR. ZERRIFFI: It is a NEPA document?

21 MR. FERGUSON: Yes.

22 MR. ZERRIFFI: Okay. That's what I kind of
23 thought, considering it looks like a NEPA document. You
24 continued construction of the National Ignition Facility at
25 the time that this document was being prepared.

1 MR. FERGUSON: That's correct.

2 MR. ZERRIFFI: Okay. What's the point of this
3 document?

4 MR. FERGUSON: It's to fulfill the requirements of
5 the joint stipulation.

1-6

6 MR. ZERRIFFI: I see. So I'm a little confused
7 here, because for me a NEPA document means that you were
8 going to do an environmental impact analysis, make a
9 decision, and then proceed with your action.

10 MR. FERGUSON: There has already been an
11 environmental document prepared for this facility.

12 MR. ZERRIFFI: Right.

13 MR. FERGUSON: This had a very narrow focus, and
14 it had to do with the potential for finding additional
15 contamination at the site. The court chose not to restrain
16 or limit the activities of the department during that
17 period, and the department assumed responsibility for what
18 it might find, and depending on what it found, it had
19 various ways to go. As it turned out, there was nothing
20 found, and it proceeded to continue to construct.

21 MR. ZERRIFFI: Okay. I have two more questions, I
22 think.

23 There has been in all of this documentation that's
24 been produced on the National Ignition Facility, there has
25 been at times discussion of using materials like lithium

1-7

1 hydride, plutonium, and uranium at the facility. My
2 understanding is that currently this is not planned for
3 experimentation at the facility. I could be wrong. My
4 question, though, is, is use of those materials within the
5 plan, and is it possible to use those materials within the
6 facility, even if they are not planned to do those
7 experiments at the time?

8 MR. CRANDALL: It depends on the material.

9 MR. ZERRIFFI: Specifically plutonium, uranium,
10 and lithium hydrides.

11 MR. CRANDALL: Plutonium, we will make a decision
12 before January 1, 2004 whether or not to do any experiments
13 with plutonium, and if we decide to propose experiments with
14 plutonium, we will then enter into a NEPA consideration of
15 that.

16 MR. ZERRIFFI: Okay.

17 MR. CRANDALL: With respect to uranium, we did a
18 supplemental analysis and determined that there was no
19 impact from using uranium in the specific experiments
20 considered, and in the case of lithium hydride, there is an
21 expectation we might do small quantities of lithium hydride
22 that fit within the present time but no substantial
23 quantities which was what was the question.

24 MR. FERGUSON: Again, that could be part of a
25 decision to do in the future, but it would be subject to the

1-7
(cont.)

1 NEPA consideration.

2 MR. ZERRIFFI: Okay. So there will be a separate
3 NEPA analysis done if those decisions are made.

4 MR. CRANDALL: Yes.

5 MR. ZERRIFFI: Okay. That's what I wanted to
6 know. And in my last question is -- this is going to be a
7 really stupid question. It's going to seem like a real
8 stupid question, but it sort of struck me when I was reading
9 this thing, and that is if you finish construction, operate
10 the facility for its period that you are supposed to operate
11 it for, what do you plan to do with it at the end?

1-8

12 MR. CRANDALL: There has been a little study of
13 the decommissioning, but not any substantial study.

14 MR. ZERRIFFI: Okay.

15 MR. CRANDALL: That facility, given the nature of
16 its construction, it will be there for a very long time. It
17 will be hard to remove. So decommissioning might mean any
18 number of alternative uses or manners of closing the
19 facility, but that has not been studied in any detail. The
20 anticipated life of the facility is 30 years.

21 MR. ZERRIFFI: All right. That's it.

22 MR. BROWN: Thanks very much. Are there other
23 questions?

24 MS. ELDREDGE: I'm Maureen Eldredge with the
25 Alliance for Nuclear Accountability. A couple of questions.

18

1 One regarding the characterization. How much of it was
2 completed when the eastern traffic circle contamination was
3 found? I assume you had completed most of Phase 1 and were
4 well into Phase 2.

1-9

5 MR. SCOTT: Yeah. We had done some geophysical
6 work there, had done soil, some soil borings, and a water-
7 monitoring well. I think it was actually three water-
8 monitoring wells that is specifically in the EIS. I can't
9 remember exactly, but there had been some substantial work
10 done at depth. That was a previously excavated area in a
11 landfill closure from the 1984-1986 period.

12 So they had done a lot of work there, and they had
13 a lot of reports there from that previous soil work and
14 excavation area. So when we searched there what we did was
15 typically go around where that old excavation had been
16 because that had all been pulled out, been done, and put
17 monitoring wells in. They did some soil sampling. They did
18 some geophysical work.

19 MS. ELDREDGE: So the contamination there; was
20 that found because of the characterization? I was under the
21 impression from the EIS it was from some auxiliary work that
22 was going on.

1-10

23 MR. SCOTT: No. It was found from some routine
24 maintenance at the surface, some ground regrading in that
25 area. They typically capture all that soil and collect it,

19

1 and then test it at some later date. So that was on the
2 surface in an area that had been previously excavated in the
3 old landfill closure.

4 MS. ELDREDGE: So the geophysical work that you
5 had done at that site up to that point did not find this
6 contamination.

1-11

7 MR. SCOTT: You couldn't expect it to. That
8 geophysical work was looking for things like capacitors or
9 large construction debris or things like that. That's what
10 you look for in geophysical testing. You don't really test
11 every inch, every square meter of the soil, although we have
12 done a lot of soil testing and wells.

13 MR. CRANDALL: I think the direct answer is yes.

14 MS. ELDREDGE: Had there been soil testing at that
15 site prior to finding the contamination?

1-12

16 MR. SCOTT: There had been some soil testing, but
17 it had been mainly in the area that had not been previously
18 excavated, and that was where we had the issue of the soil
19 testing not coming up with that -- that area there because,
20 again, that was a relatively small area in a relatively
21 large area, and we didn't go around the entire site and test
22 samples from all areas. We tested where there was some
23 suspicion that there might be some contamination.

24 MS. ELDREDGE: Going to employment levels, how
25 many current Lawrence Livermore employees are expected to be

1-13

1 employed at the NIF that are currently working in some other
2 capacity, perhaps NOVA folks who are going to transfer?

20
1-13
(cont.)

3 MR. CRANDALL: Well, NOVA has been closed.

4 MS. ELDREDGE: Right. I'm assuming they are doing
5 something else.

6 MR. CRANDALL: There are a number of people
7 working in laser development and in inertial fusion, and
8 there was a study done that said what the anticipated
9 employment was in the long term associated with operations
10 at the NIF, and it was, I think, a number like 350, but I
11 would have to go back and check that document.

12 MS. ELDREDGE: I remember 230 or something in that
13 range. Were those new employees in addition to the current
14 Lawrence Livermore employees, or that would be the total?

1-14

15 MR. CRANDALL: No. That was the total number, and
16 it assumed, I think, some small growth from the present base
17 operations set, but not a huge growth.

18 MS. ELDREDGE: Do you have any idea how many new
19 employees would be employed at NIF in that level? Would
20 those be senior scientists?

1-15

21 MR. CRANDALL: In them long term, you're talking?

22 MS. ELDREDGE: Yeah. Once it's finished and
23 running.

1-15
(cont.)

24 MR. CRANDALL: I don't know that number. I know
25 the number -- I think I know the number that was on the

21

1 total.

2 MS. ELDREDGE: Which is the total, and it includes
3 current employees.

**1-15
(cont.)**

4 MR. CRANDALL: But it is in the economic impact as
5 part of the original EIS.

6 MS. ELDREDGE: But it seems like all of those
7 numbers were total numbers and not new employee numbers,
8 which is what I'm trying to get at.

**1-15
(cont.)**

9 MR. CRANDALL: Right. That may be true, and so
10 you would have to do some analysis, but it could be
11 determined.

12 MS. ELDREDGE: In regards to the white-tailed
13 kite, which was mentioned as a possible victim of additional
14 truck traffic, has there been evidence of disturbance to
15 that species with the NIF construction?

1-16

16 MR. SCOTT: In fact, there is no evidence of
17 disturbance to the white-tailed kite. They are expanding.
18 We probably have one of higher concentrations of the
19 white-tailed kite because it's such a protected site. We
20 meet probably biweekly on endangered species, and I know
21 there's been four sets of hatchings over the past year, and
22 some of them were double clutches, so we've had six to seven
23 new sets of white-tailed kites coming up.

24 MS. ELDREDGE: So construction to this day has not
25 disturbed --

**1-16
(cont.)**

1 MR. SCOTT: There has really been no impact that²²
2 we can tell.

3 MR. CRANDALL: Unless it was positive.

4 MS. ELDREDGE: And my last question: Is the
5 anticipated life of the facility, the 30-year number, due to
6 expectations that the facility will become structurally
7 problematic or just that that's the experiments that you
8 expect to take that much time, and then you will be done?

1-17

9 MR. SCOTT: I think it's because we can't really
10 predict anything beyond a 30-year life. We just can't
11 predict beyond 30 years. We just set an arbitrary cut-off
12 point and say we have to be ready for -- assume a life cycle
13 of 30 years.

14 MS. ELDREDGE: That's just an arbitrary number.

1-17
(cont.)

15 MR. SCOTT: Pretty much.

16 MR. CRANDALL: Yes. The permanent equipment that
17 doesn't get changed out on any kind of service basis could
18 last longer. It's an arbitrary choice based on programmatic
19 vision.

20 MS. ELDREDGE: And what's the vision beyond that?
21 Is there going to be no more need for ignition work or
22 fusion work?

1-17
(cont.)

23 MR. CRANDALL: If I had a programmatic vision
24 beyond that, I could give it to you, but I don't.

25 MS. ELDREDGE: There's no additional facilities

1 expected.

2 MR. CRANDALL: Right.

3 MS. ELDREDGE: Okay. That's all my questions.

4 Thanks.

5 MR. BROWN: Are there any other questions?

6 (No response.)

7 MR. BROWN: Okay. We are now prepared to take
8 formal comments. Again, if anybody is prepared to do that,
9 I will ask them again to step to the mike and identify
10 themselves and offer an organizational affiliation, if
11 that's in order. Okay. Welcome. Welcome once again.

12 MR. ZERRIFFI: Again, I'm Hisham Zerriffi,
13 Institute for Energy and Environmental Research, Takoma
14 Park, Maryland. These are sort of what scattered comments,
15 since I haven't prepared anything formal.

16 I'd like to start by saying that those of us who
17 were not involved in the lawsuit or joint stipulation do see
18 this as a NEPA document, and I'll speak only for myself --
19 I'm sure those who were involved in the lawsuit also see it
20 as an NEPA document, but speaking as somebody who was not
21 involved in the lawsuit who sees it as a NEPA document, I
22 don't find this is very much of a document that follows in
23 the spirit of NEPA in that you have activities ongoing
24 before an environmental analysis is completed and before a
25 decision is made.

1-18

24

1 To me, that violates the fundamental idea of NEPA.

2 You have a facility now -- if your purpose was to evaluate
3 the environmental impacts in the area of the construction of
4 NIF, you started when you had almost no construction, and
5 you put out an EIS, draft EIS, when you're 82 percent
6 complete, something is wrong.

7 And I understand there is a court -- the courts
8 skew things to a certain degree when you have this as part
9 of a lawsuit, but this is just not NEPA. This is not a NEPA
10 document. It looks like a NEPA document, it reads like a
11 NEPA document, but it is not a NEPA document in any
12 common-sense of that.

**1-18
(cont.)**

13 My next comment is something relatively minor, but
14 I think it deserves at least a little bit of comment, which
15 is that you have on -- I don't remember what page it's on --
16 you have a discussion of the fact that if you demolish NIF
17 under an action alternative because you decide that it's not
18 going to work, you have all kinds of horrible environmental
19 impacts demolishing it. My God, this is going to be
20 terrible.

1-19

21 I know I'm being sarcastic, but my point is, quite
22 simply, goes back to my question I had earlier: What are
23 you going to do with it if you operate it? Either it's
24 going to get demolished then or you don't have to demolish
25 it now. That's really a straw man that you have in there.

1 That's a false comparison to make, to say if we stop now
2 we're going to demolish it, we're going to have dust, we're
3 going to have truck trash, we're going to have all of these
4 things.

5 Well, you know, if you demolish it after 30 years
6 you're going to have dust, truck traffic, and your dust is
7 not going to be simply dust. It's going to have other
8 things in it because your decontamination is not going to be
9 a hundred percent. If you can moth ball it at that point in
10 time, you can moth ball it now and just leave it.

11 It's a false argument. It detracts from the
12 document. I would really suggest changing that in the final
13 document. Either compare the consequences of destruction
14 now and destruction then or quite explicitly state that you
15 can moth ball the facility with a minor amount of work, I'm
16 sure, and walk away from it. It's been done before in the
17 DOE. I know. There's plenty of facilities sitting all over
18 the complex that have never opened their doors.

19 My next point is related to my questions about
20 plutonium, uranium, lithium hydride. My comment is simply
21 this. If you construct a facility that is designed to have
22 certain operations or can have certain operations, those
23 environmental impacts need to be addressed at that time so
24 that commenters like myself, when commenting on the facility
25 and the environmental impacts of the facility, way back in

**1-19
(cont.)**

1-20

1 the SSN PEIS, can know the full range of activities and the
2 full range of environmental impacts that they may have.

3 I don't think that it is valid to say we're going
4 to defer judgment on whether we're going to use plutonium
5 and then conduct a NEPA analysis at that time. That NEPA
6 analysis should have been done as part of the SSN PEIS. It
7 could even have been done as part of this EIS, considering
8 that you had the EPA say, look at the environmental hazards
9 of operating the National Ignition Facility.

1-21

10 Use of plutonium and lithium hydride and uranium
11 is going to have environmental impacts. And so you could
12 have done that as part of the first one. You could have
13 done it as part of this one. It's got to be done because it
14 is a fundamental part of the facility that it can operate
15 with those materials and there have been actually -- the
16 idea to use those materials has been presented. It's got to
17 be evaluated then as part of a whole.

18 Let me see. Essentially, that's it. I just want
19 to reiterate that you have essentially precluded any real
20 action in this EIS. It's really -- you know, you said it
21 perfectly. You did it to comply with an order. You didn't
22 do it in order to follow NEPA.

1-22

23 And so personally, you know, this document, I'm
24 sorry that there has been this money spent on this document.
25 I'm sorry that you have this number of people sitting in

1 this room at I don't know how many dollars an hour our
2 taxpayers' money is going to for a document that is
3 completely and utterly useless as a decision-making document
4 under NEPA. It was a waste of time.

5 I'm glad you went around and you looked and you
6 did the geophysical measurements and you checked and you did
7 all of those other things. Excellent. It should have been
8 done ahead of time, but it's good you finally did it. This,
9 a waste of paper, a waste of time, and a waste of money.

1-23

10 MR. FERGUSON: Could I just add for the record,
11 since you weren't involved with the litigation, I wouldn't
12 expect you to know this, but that was exactly what the
13 department offered to do, and the plaintiffs would not
14 settle on that basis? They insisted on an EIS. Therefore,
15 the document you see is in the form it's in because of the
16 nature of the settlement.

17 MR. BROWN: But we have your comments on the
18 record. I appreciate it. Thank you. You're commenting as
19 well?

20 MR. SCOTT: Could I ask, are you going to provide
21 written comments of this or kind of articulate?

22 MR. ZERRIFFI: No. I mean, unless you see
23 something -- I think basically what I had to say is in the
24 transcript. I don't see how it's anything much differently.

25 MR. BROWN: Thanks.

28

1 MS. ELDREDGE: Maureen Eldredge with the Alliance
2 for Nuclear Accountability. We are an umbrella organization
3 for 30 groups who work around DOE's nuclear weapons sites,
4 and a large number of them were party to the lawsuit, and I
5 have to say that one of the reasons they insisted on an EIS
6 was to get a real EIS, and this is not that document.

7 To echo what Hisham said, this is in no way a tool
8 for decision-making. It has a preordained outcome. All of
9 the evidence is slanted to the preferred alternative, and it
10 is the most narrow interpretation of the joint order in
11 terms of the scope. This was an opportunity to do a more
12 thorough evaluation of the NIF and its consequences, an
13 opportunity that seems even more valuable right now because
14 of the changes to some of the NIF construction horizons,
15 given its budgetary and technical problems, and that
16 opportunity was wasted.

1-24

17 As I said, it was overly narrow in scope, and
18 there were no scoping hearings, which are not required as
19 part of NEPA but certainly are a valuable way for the
20 department to get a better sense of what the picture they
21 should be looking at is. And I think the absence of scoping
22 hearings was just one of the flaws of this document.

23 In terms of specific problems, the failure to
24 analyze action alternatives at any depth is ridiculous. The
25 heart of NEPA is alternatives. You can scarcely say you

1-25

1 have a NEPA document when you say at the beginning there
2 weren't any other reasonable alternatives, so we didn't look
3 at any. I think already one has been mentioned: Rather
4 than demolishing the building, moth balling it right now.
5 That is a perfectly reasonable alternative, in fact, one
6 that would be much cheaper than any of the other
7 alternatives, and that was not considered in any way. The
8 original lawsuit was precisely based on the inadequacy of
9 the EISs, and this NEPA document repeats that problem.

**1-25
(cont.)**

10 Second, you cannot assume the probability of
11 finding new contamination at the site is zero, as is stated
12 in the document. The problems at the east traffic circle
13 were found. I thought they were found just after Phase 1
14 evaluation. That they were found after some additional
15 characterization under Phase 2 is a little bit shocking, and
16 that they weren't found from any of that characterization
17 work but from some unrelated routine-maintenance work speaks
18 to the fact that I doubt we can say with the kind of
19 certainty that is said in this document that all of the
20 contamination problems have been found. Given the history
21 of the area, given the shoddy record keeping of the past, I
22 think continued characterization is warranted.

1-26

23 Looking at the job situation, the NEPA document
24 states quite dramatically that there will be socio-economic
25 impacts due to job loss if the facility is not constructed

1-27

1 and demolished. However, there seems to be really no basis
2 in fact for any of those statements.

3 If a new alternative use of the facility was put
4 in place, there might be more jobs than for what the NIF
5 facility right now is calculated to offer. I don't know
6 that any analysis of what level of employment would happen
7 if some other alternative use of that facility came into
8 play.

9 There is no information on the number of new jobs,
10 so we're not just talking about, you know, suddenly we're
11 going to fire 300 Lawrence Livermore employees if NIF
12 doesn't get built. Right now there are currently employees
13 working there. Can they be reassigned? Has there been any
14 analysis of that? What is the retirement rate? What people
15 would be leaving anyway?

16 It seems like that whole statement is just based
17 on pulling things out of the sky. And it also doesn't look
18 at current employment opportunities in the area. We're
19 right now in an economic boom, and California is certainly
20 in the heart of some of that economic boom, and no one has
21 looked at what current employment opportunities are in the
22 area if people did get laid off from that work. And there
23 might be no socio-economic impact, and none of that analysis
24 has been done. Analysis needs to be of new jobs, not total
25 jobs.

**1-27
(cont.)**

31
1 Further on, it talks about worker injury, and the
2 statement that more workers would be injured if the building
3 was demolished than if construction continued. That
4 statement, again, is completely without basis in fact and
5 cannot be substantiated. You can discuss relative
6 probability of injuries.

7 You cannot make a blanket statement that more
8 workers will, in fact, be injured. You can't know that.
9 And, in fact, demolition right now might be safer than some
10 year 30 years or more hence when we have to do D&D on this
11 facility because now there is no radiation contamination in
12 the facility. So the impacts on workers might even be less.
13 None of that analysis was done rigorously.

1-28

14 The statement also says that increased traffic
15 from demolition might disturb the white-tailed kites. This
16 is also not substantiated. In fact, earlier questions said
17 that the traffic from construction of NIF, which certainly
18 must have been significant, had no impact on the bird
19 population. So what is the basis for a statement that
20 increased traffic from demolition would somehow impact the
21 bird population? If it didn't impact them when they were
22 building it, why would it impact them when they are taking
23 it down? Using that, trying to cover up the need to
24 continue this facility with the poor, innocent, white-tailed
25 kite, I think, is really out of line.

1-29

1 And, finally, I have to agree with Hisham
2 regarding the analysis for using the facility for plutonium,
3 uranium, other elements. If that is a potential use of the
4 facility, it needs to be analyzed now. I don't think we
5 want to wait until 2004 for yet another NEPA document that
6 has yet another preordained outcome. I think the
7 communities have a right to know what some of the potential
8 impacts are now. Thank you.

1-30

9 MR. BROWN: Thank you. Any other public comments?
10 {No response.}

11 MR. BROWN: Great. Right on time.

12 MS. AURILLIO: Hi. Good afternoon. Thank you for
13 giving me the opportunity to testify. My name is Anna
14 Aurillio. I'm a staff scientist with the U.S. Public
15 Interest Research Group. We are the national lobbying
16 office for the state PIRGs, which are nonprofit,
17 nonpartisan, environmental, consumer, and good-government
18 advocacy organizations active across the country.

19 Our motto is, when it comes to the environment is
20 "prevent pollution," and in my background as an
21 environmental engineer looking at different sources and
22 problems of environmental pollution, we have definitely
23 found that preventing pollution is cheaper and easier than
24 cleaning up once it has occurred. And I wanted to comment
25 on this supplemental EIS because I feel like the National

1-31

1 Ignition Facility is a project that is going to make
2 environmental problems at Lawrence Livermore National Labs
3 worse and not better for a couple of reasons.

1-31
(cont.)

4 First of all, we are part of the Green Scissors
5 Campaign, along with Friends of the Earth and Taxpayers for
6 Common Sense. U.S. PIRG is a leader in this campaign, which
7 has helped to eliminate billions of dollars worth of federal
8 spending on programs that we feel are both wasteful and
9 environmentally harmful. In fact, many of our successes are
10 programs that were being conducted right here in this
11 building, and we hope to add the NIF to this list. And the
12 reason for that is threefold.

13 First of all, we think the NIF is incredibly
14 expensive, and the attachment that I have attached to the
15 back of my statement shows that cost estimates continue to
16 go up. In fact, someone once told me that if you look at
17 any DOE project and you take the initial estimate and you
18 look at the relationship between that and the final cost,
19 there is always a factor of pi involved, and we're starting
20 to get close to that here.

1-32

21 And, in fact, we have now learned that DOE is
22 admitting that this project is likely to cost hundreds of
23 millions of dollars more, and there are serious technical
24 questions as to whether or not it will actually be a
25 national ignition facility as opposed to a national laser

1 facility, let's say.

2 So it's extremely expensive, and at the same time,
3 while PIRG and other groups have been working to cut
4 environmentally harmful programs from DOE's budget, we have
5 also been working to increase funding for programs that we
6 feel will lead this country to a more secure, affordable
7 energy future, such as the renewable energy and the energy
8 efficiency programs. And working under the congressional
9 budget caps, we know that programs that are funded in the
10 Energy and Water Bill, for example, will compete against
11 one another and that the National Ignition Facility will
12 create a huge funding wedge that will squeeze out programs
13 that we think are much more likely to lead us to a
14 sustainable energy future than laser-driven future.

15 And I know that energy research is one reason
16 often given as sort of a side benefit of the NIF, much like
17 Tang was a side benefit of the Apollo moon mission, but I
18 don't think it justifies spending \$5 million on this
19 project.

20 So we don't think it's going to lead to an
21 environmentally sound energy source. Certainly the
22 economics of it seem pretty remote as well in terms of
23 energy policy, so you can't justify it that way. I know
24 that folks in the arms-control community have serious
25 concerns about that aspect of it. And, finally, I mean this

1-32
(cont.)

1-33

1-34

1 project is going to create and use radioactive materials so
2 you're going to increase environmental risks, both to
3 workers and then to whoever is left to clean up the site.

4 So we feel that this project should not go
5 forward. You know, you've discovered some PCBs at the site,
6 and the supplemental EIS talks about the steps you've taken
7 to try to remediate that problem. Now why are you going to
8 go and build a project that is going to use radioactive
9 materials and put it on the site? That's not going to help,
10 and you are going to end up spending even more hard-earned
11 taxpayer dollars, so we urge that this project be
12 terminated. Thanks.

13 MR. BROWN: Thank you.

14 MR. CRANDALL: Can I make one comment in response?

15 MS. AURILLIO: Sure.

16 MR. CRANDALL: We will respond to your comments in
17 the document, but I couldn't help but be touched by your use
18 of pi because I've used it since I was a research post-doc.

19 MS. AURILLIO: Maybe I heard it from you.

20 MR. CRANDALL: In evaluating all endeavors that
21 are something that hadn't been done before. If you're
22 really good and you have good vision and you do it well, you
23 get pi.

24 MS. AURILLIO: Well, I understand that.

25 MR. CRANDALL: I hoped that we would be better

1 than that because we had sufficient background, but time
2 will tell.

3 MS. AURILLIO: Uh-huh.

4 MR. CRANDALL: The other comment was more
5 seriously, you commented on the probability of ignition,
6 which, of course, can only be evaluated by judgment because
7 it's never been accomplished. Our confidence scientifically
8 in ignition is higher than it's ever been. Nothing has
9 changed that --

10 MS. AURILLIO: I was led to believe.

11 MR. CRANDALL: -- except for the positive.

12 MS. AURILLIO: Well, I was led to believe that
13 actually there were some problems with materials used to
14 make the lenses and that that actually might limit the
15 energy that you would be able to put out. Is that not the
16 case?

1-35

17 MR. CRANDALL: There are issues with what's called
18 3-Omega damage to the final optics components that would
19 limit, if not ameliorate, would limit the full power shots
20 you could do without changing out those components. But it
21 would not curtail you from doing those. It might mean that
22 your operational costs were higher, but you could still do
23 the full power shots and do ignition.

24 MS. AURILLIO: How much higher? Is that included
25 in the \$300 million additional cost?

1-36

37
1 MR. CRANDALL: It's being evaluated now, but the
2 current expectation is that that problem will be eliminated
3 or ameliorated by presently understood and being
4 investigated mechanisms for the damage. But if it were not,
5 it would lead to higher operational costs, and that has not
6 been fully determined, but it's not a doubling of
7 operational costs.

8 So, yes, it would be an issue. No, it doesn't
9 really have an impact on the probability of achieving the
10 mission.

11 MS. AURILLIO: Hmm. Okay. Well, that's different
12 than other points of view I've been led to believe. Do you
13 have any other questions or comments?

14 MR. CRANDALL: Yeah. It is a matter of judgment,
15 of course.

16 MS. AURILLIO: Okay.

17 MR. BROWN: Okay. Thanks very much. Are there
18 other comments from the public at this time?

19 MR. SCOTT: As the document manager, I'd like to
20 again reiterate that we would be looking for any comments
21 that you have to improve the quality of the document. We
22 feel that we did a thorough, professional, and accurate job
23 looking at the varied materials and the potential for
24 environmental impacts from those materials and if you have
25 something that you would like to relevant to those kinds of

1 issues, we would certainly like to get it in writing. We
2 would certainly like to address it and improve the quality
3 of the final document.

4 MR. BROWN: All right. If we have no other public
5 comments at this time, we will recess the meeting rather
6 than adjourn, in case either you have any further comments
7 or someone shows up to make a comment. So at this point we
8 will recess. Thanks again.

9 (Whereupon, at 3:10 p.m., a brief recess was
10 taken.)

11 MR. BROWN: It is 4 o'clock. We are reconvening
12 the public meeting on draft environmental impact statement,
13 the supplemental draft environmental impact statement on the
14 National Ignition Facility for the purpose of taking public
15 comments. There is no member of the public wishing to make
16 comments at this point. We have reached the conclusion of
17 the time allotted for the meeting, and so we are formally
18 adjourning this session. Thank you very much.

19 (Whereupon, at 4:00 p.m., the meeting was
20 adjourned.)

21 //

22 //

23 //

24 //

25 //

CERTIFICATE OF COURT REPORTER/NOTARY PUBLIC

I, Theodore Fambro, the officer before whom the foregoing testimony was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by me and thereafter reduced to typewriting; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto; nor am I financially or otherwise interested in the outcome of the action.

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My Commission Expires:

DOCUMENT 2: Fact Sheet, U.S. Public Interest Research Group

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U.S. Public Interest Research Group

National Association of State PIRGs

TESTIMONY OF ANNA AURILIO, U.S. PIRG STAFF SCIENTIST ON THE NATIONAL IGNITION FACILITY DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

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December 1, 1999

As one of the leading groups in the Green Scissors coalition with Friends of the Earth and Taxpayers for Common Sense, we have opposed the National Ignition Facility as a wasteful government program which will harm the environment. This project, as far as we can tell, is an extremely expensive make work project for weapons scientists. The NIF is too expensive and environmentally harmful to justify its existence and should be terminated. The Lawrence Livermore National Laboratory is already a Superfund site, and the NIF will worsen the problem by generating more radioactive waste.

From an energy policy perspective, the National Ignition Facility will divert increasingly scarcer research dollars from valuable renewable energy and energy efficiency programs. Instead it will squander hard-earned tax dollars on a project which is very unlikely to lead to an economically viable energy source and certainly not one which will be environmentally acceptable. Indeed, the NIF will use and generate radioactive materials, which will increase environmental risks.

Finally, this project has been mismanaged and continues to be plagued by serious technical problems. NIF's cost estimates have doubled since 1994. The attachment shows that the 1998 construction and 30 year operating costs total at least \$5 billion. Now DOE has admitted that NIF is at least \$300 million over budget and more than a year behind schedule. Even the Energy and Water Appropriators have demanded more accountability and have asked that termination costs be estimated if the Secretary cannot certify a new cost and schedule baseline. This project should be terminated to prevent further contamination of the environment and further waste of tax dollars.

2-1

Livermore Make-Work

National Ignition Facility

The National Ignition Facility (NIF) is a Department of Energy (DOE) nuclear weapons project being constructed at the Lawrence Livermore National Laboratory in northern California. NIF would use laser fusion technology to blast a fuel pellet of radioactive tritium and deuterium in hopes of igniting a thermonuclear explosion in a reactor vessel ignition. NIF's cost estimates have doubled since 1994 and are continuing to rise. Current expected construction estimates are \$1.2 billion with another \$3.8 billion in operating costs over 30 years. NIF will produce radioactive waste and threaten efforts to limit the spread of nuclear weapons.

Green Scissors Proposal The National Ignition Facility should be canceled and construction terminated. Relying on existing facilities rather than expensive new ones would save the taxpayer more than \$5 billion over the 30-year lifetime of the project.

Current Status NIF is a rapidly expanding "black hole" for tax dollars. In 1998, Congress appropriated NIF \$393.2 million for FY99, including \$291.2 million for construction and another \$102 million drawn from a separate inertial fusion line item. The project had received \$229.1 million in FY98, up from \$191 million in FY97. In 1997, an unrecorded waste

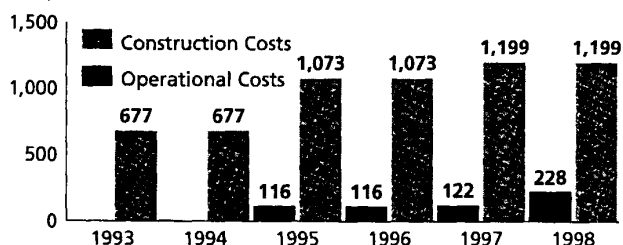
\$5 billion

"As far as maintaining the stockpile is concerned, (NIF) is not necessary"

Ray Kidder, Livermore laser physicist,
Science, Vol. 277, July 18, 1997

2-2

National Ignition Facility Costs In \$ millions



2-3

2-3

Note: For 1998, Operational cost estimates includes \$102 million drawn from a separate Inertial Fusion Line.

Source: Alliance for Nuclear Accountability

dump was discovered beneath the NIF construction site. DOE was subsequently ordered by Federal court to prepare a supplemental Environmental Impact Statement for NIF.

\$ Project Hurts Taxpayers

NIF is extremely expensive. NIF is the single most costly element of DOE's nuclear weapons program (called Stockpile Stewardship), although its value to stewardship of the U.S. nuclear arsenal is dubious at best.

Billions of taxpayer dollars are being thrown at an experimental program. Experts at DOE's own laboratories rate NIF's chances of achieving ignition at less than 10 percent.

Taxpayer dollars are being wasted as NIF offers no commercial use. The future of laser fusion as an energy source is highly speculative. A commercially viable fusion demonstration plant will not be possible for at least three to four decades, if ever.

🌱 Project Hurts the Environment

NIF will create radioactive waste. Its fuel contains radioactive tritium and even its "routine" operation creates contamination. Due to a lawsuit brought by 39 plaintiff organizations, in 1998 the government declassified for-

merly secret documents outlining plans to use uranium, plutonium and lithium hydride in NIF experiments. This would increase environmental risks.

2-5

The site needs cleanup, not more waste. Livermore Lab is already a Superfund site. FY99 cleanup funding for the entire site will total a mere five percent of the NIF budget.

2-6

2-4

NIF undermines efforts to prevent the spread of nuclear weapons. By providing a means for nuclear weapons designers to continue their research and development in the absence of underground testing, NIF fosters nuclear weapons advancement. Controversy exists as to whether NIF violates the Comprehensive Test Ban Treaty.

2-7

📞 Contacts

Brad Morse, Alliance for Nuclear Accountability, (202) 833-4668; Marylia Kelley, Tri-Valley Communities Against a Radioactive Environment, (925) 443-7148; Jackie Cabasso, Western States Legal Foundation, (510) 839-5877; Bob Gould, M.D., Physicians for Social Responsibility, (510) 845-8395.



DOCUMENT 3: Meeting Transcript, Livermore, California, December 8, 1999, 3:00 p.m.

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